

*Missouri National
Recreational River
Nebraska and South Dakota
General Design
Memorandum MRR-1*

Gavins Point Dam, South Dakota,
to Ponca State Park, Nebraska



OMAHA DISTRICT CORPS OF ENGINEERS
DEPARTMENT OF THE ARMY
JULY 1980

SUPPLEMENT NO. 2, DECEMBER 1988

CEMRD-PD-R (CEMRO-PD-M/9 Sept 1988) (1105-2-1150a) 3rd End
Mr. Taylor/drs/221-7279
SUBJECT: Missouri National Recreational River, Design Memorandum
No. MRR-1, Supplement No. 2, Riverside Park, Yankton, South
Dakota

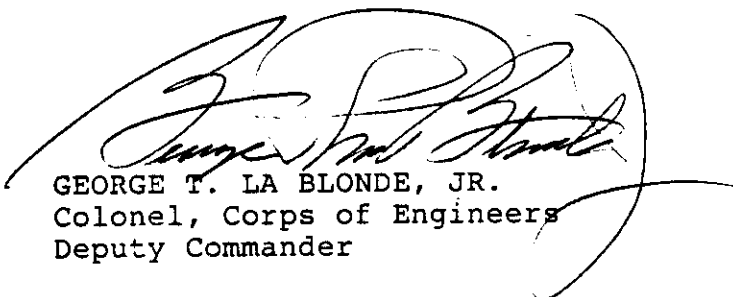
DA, Missouri River Division, Corps of Engineers, P. O. Box
103, Downtown Station, Omaha, Nebraska 68101-0103 JAN 23 1989

FOR: Commander, Omaha District, ATTN: CEMRO-PD-M

The noted changes are approved.

FOR THE COMMANDER:

Encl
Rev Supplement (1 cy)



GEORGE T. LA BLONDE, JR.
Colonel, Corps of Engineers
Deputy Commander



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

REPLY TO
ATTENTION OF

9 SEP 1988


CEMRO-PD-M (1105-2-1150a)

MEMORANDUM FOR: Commander, Missouri River Division, Corps of Engineers, P.O. Box 103, Downtown Station, Omaha, Nebraska 68101-0103

SUBJECT: Missouri National Recreational River, Design Memorandum No. MRR-1, Supplement No. 2, Riverside Park, Yankton, South Dakota

1. Fifteen copies of Supplement No. 2 to Design Memorandum No. MRR-1, Missouri National Recreational River, Gavins Point Dam, South Dakota, to Ponca State Park, Nebraska, are submitted for review.
2. The purpose of this supplement is to amend the design memorandum referenced above to include the recreational development at Riverside Park in Yankton, South Dakota.
3. I recommend that Supplement No. 2 be approved as submitted.

Encl (15 cys)


STEVEN G. WEST
Colonel, Corps of Engineers
Commanding

CEMRD-PD-R (CEMRO-PD-M/9 Sep 88) (1105-2-1150a) 1st End Mr. Galloway/bf/221-7280
SUBJECT: Missouri National Recreational River, Design Memorandum No. MRR-1,
Supplement No. 2, Riverside Park, Yankton, South Dakota **OCT 19 1988**

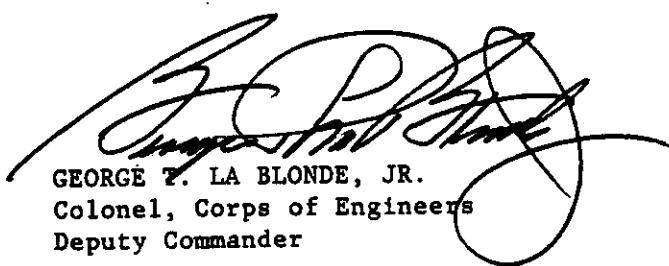
DA, Missouri River Division, Corps of Engineers, P.O. Box 103, Downtown
Station, Omaha, NE 68101-0103

FOR: Commander, Omaha District, ATTN: CEMRO-PD-M

1. This supplement is approved, subject to completion of minor text changes shown on the annotated copy returned.
2. Copies of the supplement with changes made should be returned to this office by 30 October 1988.

FOR THE COMMANDER:

Encl (annotated)
nc



GEORGE T. LA BLONDE, JR.
Colonel, Corps of Engineers
Deputy Commander

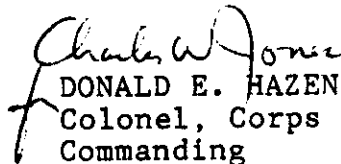
CEMRO-PD-M (CEMRO-PD-M/9/9/88) (1105-2-1150a) 2nd End Nauss/4594
SUBJECT: Missouri National Recreational River, Design Memorandum
No. MRR-1, Supplement No. 2, Riverside Park, Yankton, South
Dakota

DA, Omaha District Corps of Engineers, 215 North 17th Street, Omaha, Nebraska 68102-4978 09 DEC 1988

FOR: Commander, Missouri River Division, CEMRD-PD-R

1. Three copies of revised Supplement No. 2 to Design Memorandum No. MRR-1, Missouri National Recreational River, Gavins Point Dam, South Dakota, to Ponca State Park, Nebraska, are submitted for final approval.
2. The minor text changes recommended in your last review have been made.
3. I recommend that revised Supplement No. 2 be approved as submitted.

Encl
Rev. Supplement (3cys)


DONALD E. HAZEN LTC
Colonel, Corps of Engineers
Commanding

DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
215 North 17th Street
Omaha, Nebraska 68102-4978

Missouri National Recreational River
Gavins Point Dam, South Dakota
to
Ponca State Park, Nebraska

General Design Memorandum MRR-1

Supplement No. 2
Riverside Park
Yankton, South Dakota

December 1988

Table of Contents

	<u>Title</u>	<u>Page No.</u>
Paragraph 1	Authority	1
2	Purpose	1
3	History	2
4	Location and Site Description	3
5	Existing Conditions	3
6	Proposed Development	6
7	Development Needs	8
8	Environmental Considerations	11
9	Summary of Estimated Costs	11
10	Cost Allocation	15
11	Economic Analysis	15
12	Responsibilities for Development	16
13	Conclusion	17
14	Recommendation	17
Table 1	Lump Sum Cost Estimate - Phase 1	12
2	Lump Sum Cost Estimate - Phase 2	13
3	Lump Sum Cost Estimate - Phase 3	14
4	Estimated Total Project Cost	
	Comparison	15
5	Estimate Annual Visitation	16
Figure 1	Location Map	4
2	Site Plan	7

Table of Contents (Cont'd)

Title

Appendix A	National Park Service letter dated 26 August 1988
B	South Dakota Department of Game, Fish and Parks letter dated 30 November 1988
C	Environmental Assessment
D	Biological Assessment
E .	Fish and Wildlife Service letter dated 24 June 1988

DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
215 North 17th Street
Omaha, Nebraska 68102-4978

Missouri National Recreational River
Gavins Point Dam, South Dakota
to
Ponca State Park, Nebraska

General Design Memorandum MRR-1

Supplement No. 2
Riverside Park
Yankton, South Dakota

December 1988

1. Authority. The Missouri National Recreational River (MNRR) was authorized by Section 707 of the National Parks and Recreation Act of 1978 (Public Law 95-625) which amended Section 3(a) of the Wild and Scenic Rivers Act (Public Law 90-542). The Corps of Engineers' role in developing the MNRR under the administration of the U.S. Department of the Interior was defined in the Cooperative Agreement between the Assistant Secretary for Fish, Wildlife, and Parks and the Chief of Engineers signed on 4 January 1980 and 1 February 1980, respectively. Recreation facilities at Riverside Park in Yankton, South Dakota, will be constructed by the City of Yankton under Section 215 of the Flood Control Act of 1968 (Public Law 90-483, 42 U.S.C. 1962d-5a). Review of the detailed plans and specifications, construction inspections, supervision, and administration will be accomplished by the Corps under the authority of the MNRR and will be cost-shared by the City.

2. Purpose. The purpose of this document is to supplement General Design Memorandum MRR-1 to include the development of recreation facilities at Riverside Park. The Missouri National Recreational River, Nebraska and South Dakota, General Design Memorandum (GDM) MRR-1 was written by the Omaha District Corps of Engineers in July 1980 to provide the basic data for and to delineate the general procedures for implementing the MNRR project, which extends from Gavins Point Dam, South Dakota, to Ponca State Park, Nebraska. The Missouri National Recreational River Management Plan was written by the U.S. Department of the Interior as required by Section 3(b) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(b) in conjunction with the GDM. Contained within this management plan are objectives which are designed to protect and enhance the values of the river and its resources. These management objectives include the following:

• Provide recreational opportunities including, but not limited to, canoeing, boating, hiking, nature study, fishing, and

hunting to the extent that the recreational river characteristics are not degraded;

- Provide or maintain limited access for camping, boating, hunting, and fishing as well as sanitation facilities to meet public health needs and to prevent site deterioration and water pollution;

- Inform visitors of historical aspects, recreational values, and safety precautions needed to fully enjoy and use the Missouri River;

- Provide potable water supplies at all recreation sites to meet State and Federal primary drinking water standards; and

- Develop interpretive programs, user regulations, and resource uses that enhance the understanding, appreciation, and enjoyment of the various resources of the river management area.

In a letter dated 26 August 1988, the National Park Service stated that the proposed recreation development at Riverside Park is consistent with the Missouri National Recreational River Management Plan. A copy of the letter is provided as appendix A.

3. History. The first white men to travel the Missouri River corridor were probably French trappers and fur traders who came to trade with the Indians. In the late 18th and 19th centuries, numerous groups of explorers traveled through the area. The most famous exploration party was probably the Lewis and Clark Expedition, which passed through the area in 1804 and again in 1806.

By 1831, steamboat service was established on the Upper Missouri River upstream from the Yankton area. Both side-wheelers and stern-wheelers traveled this portion of the river which provided a natural avenue of trade to the forts, agencies, and trading posts of the upper country.

The city of Yankton was settled in 1858, and it served as the capital of the Dakota Territory from 1861 to 1883. In 1873, the Dakota Southern Railroad opened between Sioux City and Yankton. After the arrival of the railroad and with the existing river port, Yankton served as a secondary stopoff point for riverboats to debark passengers; unload military and building supplies, machinery, and freight; and ship out modest amounts of grain. Yankton also became an outfitting point for gold prospectors on their way to the Black Hills and Montana. However, the flood of 1881 and the eventual closure of the Coulson Packet Steamboat Line brought an end to Yankton's prominence as a Missouri River port. By 1900, steamboat travel on the Missouri River was a thing of the past.

During the 1920's and 1930's, the Yankton riverfront was used as a city landfill. Since the 1940's, this land has been used as a park and river access point. The current boat ramp was

constructed in 1977 with partial funding from the Land and Water Conservation Fund.

Historically, the area just downstream from Gavins Point Dam, which includes Yankton, has supported the heaviest recreational use of the MNRR. Downstream from Yankton, recreational use decreases because of the diminishing amount of recreational facilities and access points.

4. Location and Site Description. Riverside Park, within the Yankton city limits, is located 5.5 miles downstream from Gavins Point Dam on the left bank of the Missouri River at river mile 805.5 (figure 1). The 20-acre city park is one block south of the central business district and one block east of the U.S. Highway 81 bridge across the Missouri River. The Yankton sewage and water treatment plants are located on the downstream and upstream sides of the park, respectively. Access to the park is provided by Riverside Drive, which parallels the river and acts as the northern park boundary, and Douglas Street on the western end of the park.

The park waterfront extends for approximately one-half mile. The western portion of the park is level to slightly sloping with a maintained lawn and numerous trees. The eastern portion of the park has little vegetation and only a few trees located along the riverbank. The average riverbank height along the length of the park is 15 to 20 feet.

Adjacent to Riverside Park the river is approximately 1,300 feet wide and has a velocity of 3 feet per second within 75 feet of the bank. The channel depth averages 8 to 11 feet.

In the past, concrete rubble, asphalt, rebar, and brick were dumped over the nearly vertical bank to control erosion; and, in most instances, erosion has been controlled. When the Corps last inspected the existing bank stabilization and areas of erosion on the MNRR in May 1988, the Riverside Park reach was considered stable. However, because of the unsightliness of the bank from the river and because of the violation of Section 404 of the Clean Water Act, the riverbank is being cleaned up to remove the rebar, brick, and asphalt. Additional concrete rubble should control any breakthrough erosion which could result from removing the existing unsightly materials.

Public recreation facilities at the existing park include a four-lane boat ramp, a dock, picnic tables, two picnic shelters, fire grates, a playground, potable water, a comfort station, and two ball diamonds.

5. Existing Conditions. The existing boat ramp receives heavy use during 8 months of the year but is in use for the entire year. The heaviest boat ramp use at Riverside Park is by fishermen in March, April, May, September, and October and by fishermen and recreational boaters in June, July, and August. Because the river does not freeze over during the winter, the

City receives many calls requesting that the boat ramp be plowed even before all of the city streets have been plowed. Many sportsmen have four-wheel-drive vehicles to get to the ramp, but they cannot maneuver on its steep slope.

Because of the heavy use of the boat ramp by fishermen and recreational boaters on weekends and evenings in the summer, lines of vehicles with trailers are frequently backed up through the park waiting for a turn to launch boats. This backup interferes with traffic circulation and other park activities. Most individuals are willing to wait up to 30 minutes to launch their boats; but when the time exceeds this limit, they get discouraged and tempers flare. The same kind of problem occurs in reverse as boaters await their turn to take their boats out of the water. In addition, the designated parking area, which can accommodate 21 vehicles and trailers, is inadequate, resulting in the park roads being lined with parked vehicles and trailers during periods of heavy use. This causes additional congestion. Over the Fourth of July weekend in 1988, 66 vehicles with trailers were counted at one time parked along park roads as well as city streets.

The existing boat ramp was constructed to accommodate four simultaneous launchings; however, there are only a few occasions when more than two boats launch simultaneously. This is due to several factors that were identified in a 1985 waterfront facilities study by Warzyn Engineering, Inc., of Madison, Wisconsin. These factors include the lack of proper space for maneuvering larger vehicles with trailers; an improper in-water termination; a steep grade without a transition zone; and a lack of adequate boat docking facilities. In addition, because of the degradation of the riverbed, all but approximately 3 feet of the existing 50-foot boat ramp is exposed. According to the Investigation of Channel Degradation 1987 Update for the Missouri River for Gavins Point Dam to the Platte River Confluence, degradation of the riverbed is expected to continue. It is estimated that by 1996 this degradation will lead to the exposure of the current boat ramp.

During the last 10 years, there have been significant changes in the recreational use of Riverside Park and the Missouri River which highlight the inadequacies of the existing boat ramp and associated facilities (parking lot, turnaround, and boat dock). Lone fishermen in small boats no longer dominate. Today, there are family groups as well in a variety of boats ranging from small canoes and rafts to houseboats and luxury craft. Reasons for these changes, as stated by city officials and private citizens, include the following.

• Convenience of location - The nearest public access boat ramps are located in Riverside Park, approximately 5.5 miles closer for Yankton residents than the boat ramps at Gavins Point Dam. The Corps-managed Training Dike Unit boat ramp is located on the left bank downstream from the dam. The Corps ramp on the right bank in the Tailwaters Unit has ample parking and is fully

used. Yankton residents must cross the dam to get to either of these areas.

- Congestion in the area of Gavins Point Dam - Many boaters who use the river prefer to stay away from the many campers and tourists who congregate in the immediate vicinity of the dam.

- River recreation - Windy conditions on Lewis and Clark Lake cause choppy water. Project personnel at Gavins Point Dam estimate that during the months of June, July, and August, when the prevailing winds are from the south, the lake is not suitable for waterskiing or similar activities approximately 35 percent of the time. Many recreational boaters prefer the calmer water surface of the river for waterskiing, jet-skiing, kiting, tubing, and sightseeing.

- Scenery - The visual resources along the MNRR corridor vary from natural to manmade features. Natural features include the wooded islands; the steep Nebraska bluffs; and the wide expanses of open water, sandbars, and marsh. One of the most common views is of farmlands located on the flat Missouri River flood plain.

- Fishing - Many fishermen prefer to fish in the river because the segment of the Missouri River downstream from Gavins Point Dam is more productive at times than Lewis and Clark Lake. Except for paddlefish, which are caught only downstream from the dam, the variety of fish species is nearly the same in both the lake and the river.

- Evening boating - Many local residents recreate on the river on weekdays after work to avoid the heavy weekend use by visitors to the Yankton/Gavins Point Dam area.

The increased use of Riverside Park during the last decade has prompted the City to reevaluate both the purpose of the park and the park's facilities. The Yankton Board of City Commissioners has studied the historic use, has evaluated the existing situation, and has determined that Riverside Park needs to upgrade existing facilities and add new ones. The City has proposed the development plan to be implemented.

6. Proposed Development. The facilities development plan consists of three phases. A copy of the plan is enclosed as figure 2. Phase 1 includes the removal of the existing boat ramp and access roads, the relocation of the boat ramp and approach, the addition of several docks and piers and associated bank stabilization, the installation of water and sewer lines, the installation of a manual irrigation system, the construction of new access roads, and the development of 5 parking lots for a total of 255 single parking spaces and 53 double spaces. A lighted biking/jogging trail is planned to run along the riverfront for the length of the park.

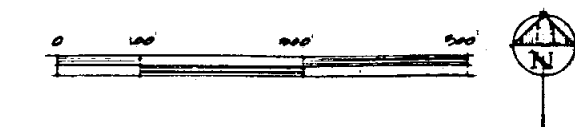


Figure 2

Items to be included in Phase 2 are picnic shelters, overlooks, an amphitheater, guardrails, benches, handrails, a fish-cleaning station, steps and walkways, and lighting. Yankton plans to continue the "period lampposts" lighting theme that is currently used on Douglas Street, which enters the park on the west end. These light fixtures would aid in establishing a historical theme for the park. Utility lighting is planned for the boat ramp, pier, and parking areas. Also to be included in Phase 2 is a comfort station located near the boat ramp.

Phase 3 items include landscaping, cooking grills, picnic tables, park benches, playground equipment, display and bulletin boards, drinking water fountains, and signs. The existing baseball and softball fields remain and will undergo no new construction.

Yankton served at one time as the territorial capital of South Dakota. To acknowledge this fact, Yankton will be designated "Capital for the Day" on 14 April 1989. Many of the activities for this day are planned to take place in Riverside Park. As a permanent commemoration, a replica of the territorial capitol building is being built by the Sertoma Club and will be the focal point for the park. In addition to housing artifacts of that period, the capitol building will be the site of many events. A statue of a riverboat captain, and a living history museum are also included in the overall park development plan. None of these items will be cost-shared.

7. Development Needs. Although fishing, power boating, and waterskiing are not the most compatible activities, they do share the common problem of access to public recreational waters. According to the 1987 South Dakota State Comprehensive Outdoor Recreation Plan (SCORP), the availability of water-based recreation facilities is particularly acute in the southeastern part of the state.

Yankton is located in South Dakota Planning District Three. According to the 1987 SCORP, this district has a demand for 77 boat ramp lanes. Currently there are only 39 lanes, resulting in an unmet need of 38 lanes. Twelve counties are included in Planning District Three, but Yankton County alone has 20.5 percent of the 1980 Planning District population. Applying this information to the unmet need for boat ramps, Yankton County's share is an additional eight ramps. Development at Riverside Park would address this need by providing improved access to the MNRR. The construction of a wider four-lane boat ramp would provide four fully functional lanes to reduce the deficit shown in the SCORP.

The current boat ramp and dock do not meet the needs of the boating public. The boat ramp is inadequate for the amount of use it receives. Although constructed for four simultaneous launchings, the structure is so narrow and steep that only two boats are normally launched at the same time. Once the boats are launched, there is a lack of tieup space while the trailers are being parked. The parking lot has less than adequate parking

facilities for the trailers, and traffic at the ramp interferes with other park activities. In addition, the South Dakota Department of Game, Fish and Parks, which locally administers the Land and Water Conservation Funds, has declared the existing boat ramps and docks obsolete (appendix B). Together with a wider boat ramp to easily accommodate four simultaneous launchings and additional docks and parking facilities, the movement of the ramp to the eastern end of the park will address these problems.

The need is great enough that a new wider boat ramp would be used to capacity. According to a 1986 survey conducted by Market Opinion Research of Detroit under contract with the South Dakota Department of Game, Fish and Parks, 57 percent of powerboaters, 59 percent of waterskiers, and 88 percent of the sailboaters did not participate in these activities as often as they desired in the previous year. The lack of time for waiting in line to launch or take boats out of the water on evenings and weekends deters many boaters from using the current Riverside Park ramp. The latent demand would be expressed by a great increase in boating participation after the new ramp facility is constructed.

The 59-mile reach of the MNRR downstream from Gavins Point Dam offers many outdoor recreational opportunities such as boating, fishing, hunting, canoeing, and sightseeing. However, excluding Riverside Park, there are only eight public boat ramps. Two of these ramps are associated with the Gavins Point project and are located immediately downstream from the dam in the Training Dike Unit and the Tailwaters Unit. There are also two ramps located in Cedar County, Nebraska; two ramps in Clay County, South Dakota; and one ramp at Ponca State Park, the downstream terminus of the MNRR. A temporary public access point has been established by the South Dakota Department of Game, Fish and Parks at Boulton Bend in Union County, South Dakota. The public continues to express interest in securing additional river access points and in improving the existing ones.

In 1984, Yankton began "Yankton Riverboat Days," an annual event held in Riverside Park to commemorate the history of the city and its association with the river. The attendance for the multiday event has risen from approximately 10,000 in 1984 to over 40,000 in 1987. As a direct result of this celebration, Yankton has formed several new groups and clubs and has expanded existing ones. The Water Skiers Club holds competitive events on the MNRR, including slalom skiing and jumping. Local baseball and softball teams use the two ball diamonds weekly throughout the season. In August 1987, the South Dakota American Legion Baseball Tournament was held at Riverside Park.

Biking is one of the most popular and fastest growing recreational activities in South Dakota. Quality biking trails may have the potential to attract tourists to the area. In fact, the few designated biking trails available in South Dakota attract tremendous use, as indicated in the 1987 South Dakota SCORP.

A biking trail was built during the summer of 1986 at Lewis and Clark Lake. This trail was constructed to meet the need for additional recreational trail opportunities cited in the 1986 South Dakota Outdoor Recreation Action Plan. The Gavins Point trail extends 4.75 miles east from the Gavins Point Unit through the Federal camping area of Pierson Ranch and ends at the National Fish Hatchery. The City of Yankton contributed \$25,000 for the construction of the 0.75-mile trail segment across Federal property. During the summer of 1988, this trail was extended from the fish hatchery into Yankton, where the City plans to continue the trail through Riverside Park. Extension of the trail through Riverside Park would make the entire trail facility accessible from downtown Yankton and would make Riverside Park accessible to bikers from the Gavins Point project, thus maximizing use and benefits of these valuable recreational resources. Future plans include a trail extension eastward to the James River that would make use of an abandoned railroad right-of-way.

Many people walk, bike, or jog through the park. This can become hazardous because of the high amount of "drive-through" traffic which does not stop but merely proceeds through the park to view the river. The addition of a biking/jogging trail would give these recreationists the opportunity to participate in their sport safe from motorized traffic. In the future, interpretive signs may be installed along this trail, making it an educational experience as well.

Many people eat lunch and enjoy the view at the park during the noon hour. Because of the lack of available picnic tables and benches, many eat their lunch sitting in their cars. Also, because there are currently no overlooks at the park, people must stand near the edge of a bank that is 15 to 20 feet high if they wish to better view the river. The addition of overlooks will provide a safer view of the river away from high banks.

An amphitheater would have many uses. The City of Yankton is planning to conduct annual public information talks at the amphitheater on subjects such as the plight of the least terns and piping plovers, which are endangered and threatened species that nest on the sandbars of the MNRR. The effect of human activity on their nesting activities will also be presented.

The Missouri River corridor contains significant natural and historic features. Historical presentations at the amphitheater will afford visitors the opportunity to gain a greater understanding of, appreciation for, and concern for the river's natural values as well as Yankton's development and its relationship with the river.

Several community groups have also expressed an interest in using an amphitheater. The Summer Stock Theater, which currently performs only occasionally in the park, would perform more often if a stage were available. The Yankton Community Band plays in

the park every Tuesday night in June and occasionally during the remainder of the summer, but the band would prefer to have a facility in which to perform. The Yankton Area Arts Association gears its entire year to the Riverboat Days celebration and has expressed an interest in more frequent use of the park if facilities become available. Each year, Yankton brings in a group called the Children's Theater to perform. It, too, has expressed an interest in performing outdoors if a stage is available.

8. Environmental Considerations. The purpose of the MNRR development is the preservation of the river corridor for the benefit and enjoyment of present and future generations. The proposed development will have a short-term adverse effect on the environment during the construction phase. A decrease in air and water quality may occur at that time, but it will be temporary and is not considered significant. A copy of the Environmental Assessment is presented as appendix C.

Since the addition of the MNRR to the National Wild and Scenic Rivers System in 1978, the least tern and piping plover have been added to the Federal list of threatened and endangered species. Both of these species occur in the MNRR corridor (refer to appendix D). There have been negative impacts to their habitat from previous recreation development along the MNRR; however, if precautions are taken, future recreation development can be compatible with piping plover and least tern habitat preservation. Because preliminary 1988 data indicated that recreation-related impacts did occur in the MNRR corridor, the U.S. Fish and Wildlife Service concurred in a letter dated 24 June 1988 (appendix E) that a public relations and education program should be implemented to address the coexistence of threatened and endangered species and recreation on the MNRR.

9. Summary of Estimated Costs. All items in the development plan were considered to be eligible for cost-sharing except the territorial capitol replica, the statue of the riverboat captain, and the living history museum. These items were not included in the estimated costs shown. Tables 1, 2, and 3 show the estimate for those items which are cost-sharable in Phases 1, 2, and 3, respectively. The estimates were provided by the City of Yankton. Table 4 shows the estimated total project cost comparison for the recreation development. A revised Government cost estimate of the project will be prepared from the detailed plans and specifications to be provided by the City of Yankton for the proposed development.

Table 1

LUMP SUM COST ESTIMATE - PHASE 1
RIVERSIDE PARK
YANKTON, SOUTH DAKOTA

<u>ACTIVITY/FACILITY</u>	<u>QUANTITY</u>	<u>YANKTON ESTIMATE</u>	<u>GOVERNMENT ESTIMATE</u>
Access and Circulation			
Roads	24 ft. x 1150 l.f.	\$ 52,511	\$ 62,305
Turnarounds	130 ft. x 250 ft.	40,730	45,202
Trails			
Bicycle/Jogging	8 ft. x 4500 l.f.	38,235	63,408
Parking	5 lots totalling 133,570 sq.ft.	196,862	218,169
Boat Launching Devices			
Surfaced Ramps	56 ft. x 75 ft. x 6 in.	54,910	51,057
Boat Piers (floating)			
at surfaced ramp	6 ft. x 90 l.f.	7,650	16,200
at riverfront	5 docks totalling 635 sq. ft.	9,000	16,200
Fishing piers and attendant facilities	10 piers totalling 1,536 sq. ft.	40,000	82,080
Utilities			
Water Supply			
Distribution System	complete	28,000	24,900
Irrigation System (manual)	150,000 sq. ft.	50,000	75,000
Site Preparation and Restoration			
Clearing and Grubbing	2,611 cu. yds.	13,055	15,666
Grading and Land Form	3,916 cu. yds.	<u>39,160</u>	<u>29,370</u>
CONSTRUCTION TOTAL (PHASE 1).....		\$571,000	\$701,000

Table 2

LUMP SUM COST ESTIMATE - PHASE 2
RIVERSIDE PARK
YANKTON, SOUTH DAKOTA

<u>ACTIVITY/FACILITY</u>	<u>QUANTITY</u>	<u>YANKTON ESTIMATE</u>	<u>GOVERNMENT ESTIMATE</u>
Access and Circulation			
Steps (outdoor)	60 l.f.	\$ 2,400	\$ 6,000
Structures			
Sanitation			
Comfort Station	1 each	33,355	45,000
Fish Cleaning Station	1 each	7,660	10,000
Shelters			
Picnic	2 each	23,000	23,000
Overlook	4 each at 32 ft. x 32 ft.	17,936	75,600
Group Camp			
Amphitheater	1 each	91,275	100,000
Utilities			
Electrical			
Lighting (parking lot and trail) complete		44,590	48,590
Protection, Control, Health and Safety			
Protection and Control			
Guardrails	1,000 l.f.	5,000	25,000
Health and Safety			
Handrails	120 l.f.	<u>1,200</u>	<u>5,280</u>
CONSTRUCTION TOTAL (PHASE 2).....		\$226,000	\$226,000

LUMP SUM COST ESTIMATE - PHASE 3
RIVERSIDE PARK
YANKTON, SOUTH DAKOTA

<u>ACTIVITY/FACILITY</u>	<u>QUANTITY</u>	<u>YANKTON ESTIMATE</u>	<u>GOVERNMENT ESTIMATE</u>
Utilities			
Water Supply			
Fountain and Outlets (regular & handicapped accessible)	6 each	\$ 9,017	\$ 6,963
Site Preparation and Restoration			
Tree Planting	25 each	7,500	17,500
Shrub Planting	390 each	3,260	15,990
Turf Establishment	12 acres	8,400	7,200
Park Furniture			
Picnic Tables	30 tables	5,156	10,500
Grills and Fireplaces	2 grills	731	1,200
Benches	30 benches	4,856	5,250
Play Facilities			
Play Equipment - Standard	complete	18,935	18,750
Signs			
Entrance-Directional-Marker	3 each	4,500	45,000
Traffic Control (Vehicular and Pedestrian)	20 each	1,000	1,000
Instructional	10 each	500	500
Interpretive Guidance and Media			
Display Boards	1 each	5,000	1,000
Bulletin Boards	4 each	1,787	4,000
CONSTRUCTION TOTAL (PHASE 3)		\$ 71,000	\$ 99,000

Table 4

ESTIMATED TOTAL PROJECT COST COMPARISON
RIVERSIDE PARK - YANKTON, SOUTH DAKOTA

	<u>PHASE 1</u>	<u>PHASE 2</u>	<u>PHASE 3</u>	<u>TOTAL</u>
(YANKTON ESTIMATE)				
Construction	\$571,000	\$226,000	\$71,000	\$868,000
20% Contingency	114,000	45,000	14,000	173,000
City - Administration, Engineering, Inspection	69,000	27,000	9,000	105,000
Corps - Administration, Engineering, Inspection	<u>40,000</u>	<u>16,000</u>	<u>5,000</u>	<u>61,000</u>
TOTAL	\$794,000	\$314,000	\$99,000	\$1,207,000
(GOVERNMENT ESTIMATE)				
Construction	\$701,000	\$338,000	\$135,000	\$1,174,000
25% Contingency	175,000	85,000	34,000	294,000
Corps - Administration, Engineering, Inspection	<u>105,000</u>	<u>50,000</u>	<u>20,000</u>	<u>175,000</u>
TOTAL	\$981,000	\$473,000	\$189,000	\$1,643,000

10. Cost Allocation. The total estimated costs for construction and redevelopment of the cost-sharable features of the Riverside Park area are \$1,207,000. In accordance with Public Law 99-662, development will be cost-shared 50-50 with the City of Yankton. The non-Federal share will be approximately \$603,500, and the Federal share will be approximately \$603,500.

11. Economic Analysis. The following economic feasibility information is based on local benefits and does not address the nationally recognized values of the river.

The population of the city of Yankton is approximately 12,000; an additional 7,000 persons live within a 20-mile radius.

The annual visitation at Riverside Park (table 5) was calculated using estimates obtained from the City of Yankton and formulas developed by the Corps, South Dakota Department of Game, Fish and Parks, City of Omaha, and the U.S. Fish and Wildlife Service. Current annual visitation at Riverside Park is estimated at 117,500 recreation days, with an annual recreation benefit of \$705,000 based on a value of \$6 per general recreation day ("Umbrella Study" estimate, updated). Because of the construction of new facilities and the improvement of existing facilities, the total recreation days are anticipated to increase to approximately 235,800, or an annual recreation benefit of \$1,414,800 (an increase of \$709,800 over the existing annual recreation benefit).

Table 5

ESTIMATED ANNUAL VISITATION

<u>Activity</u>	<u>Estimated Current Visitation</u>	<u>Estimated Visitation After Project Construction</u>
Boating/Boat fishing	18,000	36,000
Picnicking	16,700	25,000
Playground use	8,300	12,500
Hiking/walking	500	5,100
Biking	0	18,000
Baseball	28,200	32,900
Softball	10,000	12,500
Outdoor cultural events	1,200	6,300
Sightseeing	<u>17,900</u>	<u>93,200</u>
Total Activity Days	100,800	241,500
Adjusted Activity Days ^{1/}	77,500	185,800
Riverboat Days	<u>40,000</u>	<u>50,000</u>
Total Recreation Days	117,500	235,800

^{1/} Assumes 1.3 activities per recreation day

The economic life of the park and its facilities is assumed to be 50 years. Based on a total project cost of \$1,207,000, at an interest rate of 8.625 percent, the total average annual operation, maintenance, and replacement costs are estimated to be \$281,900. The benefit-cost ratio is 2.5.

12. Responsibilities for Development. The City of Yankton will design and construct the proposed facilities at Riverside Park. Design and construction costs will be shared equally by the Government and the City of Yankton. The City will pay all costs in full for each phase of development. At the completion of a phase, the City will present billing documents to the Corps,

and the Government will reimburse 50 percent of the eligible costs in accordance with the conditions of the Section 215 Agreement. The District Engineer or his representative will approve all designs and will inspect construction. Operation and maintenance costs are a non-Federal responsibility. Title to the land will remain with the City of Yankton, but the land will be dedicated in perpetuity for recreational use only. The City of Yankton has expressed both strong interest in pursuing this development and willingness to act as a sponsor for the Section 215 Agreement. Yankton development funds come from the City's budget, and the Yankton City Commission has appropriated approximately \$800,000 for use in Fiscal Year 1989.

13. Conclusion. The designation of the 59-mile stretch of the Missouri River downstream from Gavins Point Dam as a part of the National Wild and Scenic Rivers System included specific goals. Five of these goals were (1) to develop recreational areas, (2) to improve public access, (3) to provide information on historical aspects of the area, (4) to provide potable water supplies at recreation sites, and (5) to develop interpretive programs. The shared effort of the City of Yankton and the Corps will address these goals and will improve a much needed facility along the MNRR.

14. Recommendation. It is recommended that this supplement be approved as submitted and be made a part of the Missouri National Recreational River, Nebraska and South Dakota, General Design Memorandum MRR-1.

APPENDIX A

National Park Service Letter

Dated 26 August 1988



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

MIDWEST REGION
1709 JACKSON STREET
OMAHA, NEBRASKA 68102-2571



AL8(MWR-RE)

AUG 26 1988

Mrs. Jean Nauss
Planning Division
U.S. Army Corps of Engineers
Omaha District
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102-4978

Dear Mrs. Nauss:

This is to advise your agency that the redevelopment of Riverside Park is compatible to the Missouri National Recreational River Management Plan. However, the required amendment to the original Riverside Park Land and Water Conservation Fund (LWCF) agreement pertaining to the construction of a replica of the Dakota Territorial Capitol within the boundary of the park has yet to receive final approval by our Washington Office.

Our Washington Office has requested additional information on this proposal from our Denver Regional Office. They unofficially advised me that they will more than likely approve of the amendment.

Sincerely,

David H. Shonk
Associate Regional Director,
Cooperative Activities

APPENDIX B

South Dakota Department of Game, Fish and Parks Letter

Dated 30 November 1988

**South Dakota
Department of
Game, Fish and Parks**

**Division of Parks & Recreation
Sigurd Anderson Building
445 East Capitol Avenue
Pierre, South Dakota 57501-3185
(605) 773-3391**

November 30, 1988

Roger Pierce, Director
Parks & Recreation
City of Yankton
Box 176
Yankton, SD 57078

Dear Roger:

This letter is in response to your request for a declaration of obsolescence of the boat ramp and docks in Riverside Park. These facilities were constructed in 1977 with partial funding from the Land and Water Conservation Fund, and the project is identified as Yankton Boat Dock and Ramp Improvement, project number 46-00480.

Based on the information provided in your November 23, 1988 letter, copy attached, I concur that the facilities are obsolete. Please keep in mind that although the city is no longer required to operate these facilities, the city must continue to maintain the area in some form of public outdoor recreation use.

Please contact me should you have further questions.

Sincerely,



Robert J. Schneider
Grants Coordinator

RJS/hw
pierce.let
Enclosure
cc: Carol Madison
National Park Service



APPENDIX C

Environmental Assessment

FINDING OF NO SIGNIFICANT IMPACT
RIVERSIDE PARK DEVELOPMENT
YANKTON, SOUTH DAKOTA

An environmental assessment has been prepared for construction of a recreation facility for the Missouri National Recreational River (MNRR). The facility would insure safe access to the MNRR for the boating public as well as providing additional recreation facilities along this stretch of the river. An environmental impact statement describing the full environmental effects of the MNRR development was prepared in 1980.

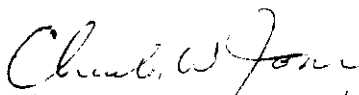
All factors which were relevant to the proposal were considered in this assessment including general environmental and social concerns, safety, and in general, the needs and welfare of the people.

Adverse impacts of this site specific action include temporary deterioration of air and water quality associated with construction activities. However, these impacts are not considered significant. The recreation development will have no adverse impact on the least tern and bald eagle, endangered species, or the piping plover, a threatened species.

The assessment has been prepared pursuant to the National Environmental Policy Act. This assessment also insures compliance with the Endangered Species Act. Compliance with Section 404 of the Clean Water Act is in progress. No long-term impacts on water quality are anticipated.

It is my finding that the potential Federal action would not have significant adverse impacts on the human environment and therefore, an environmental impact statement will not be prepared.

DATE: 1 December 1988


DONALD E. HAZEN *lie*
Colonel, Corps of Engineers
Commanding

ENVIRONMENTAL ASSESSMENT
RIVERSIDE PARK DEVELOPMENT
YANKTON, SOUTH DAKOTA
November 1988

Authority: Construction of the Missouri National Recreational River (MNRR) was authorized by Section 707 of the National Parks and Recreation Act of 1978 (Public Law 95-625) which amended Section 3(a) of the Wild and Scenic Rivers Act (Public Law 90-524). The Corps' role in developing the MNRR under the administration of the Department of the Interior was defined in a Cooperative Agreement between the Assistant Secretary for Fish, Wildlife, and Parks and the Chief of Engineers signed respectively on 4 January 1980 and 1 February 1980. This project is being pursued under the additional authority of the 1985 Supplemental Appropriations Act (Public Law 99-88).

DESCRIPTION OF THE MNRR AREA: There are three earlier reports that describe the MNRR development; the Final Environmental Impact Statement for the MNRR, the MNRR General Design Memorandum by the Corps of Engineers, and the MNRR Management Plan by the Department of Interior. The 59-mile reach of the MNRR offers many outdoor recreation opportunities for activities such as hunting, fishing, boating, and picnicking. Historically, the area just downstream from Gavins Point Dam, which includes Yankton, has supported the heaviest recreational use of the MNRR. Downstream from Yankton, recreational use decreases because of the diminishing amount of recreational facilities and access points.

LOCATION AND EXISTING CONDITIONS: Riverside Park, within the Yankton city limits, is located 5.5 miles downstream from Gavins Point Dam at river mile 805.5 on the left bank of the Missouri River. The 20-acre city park is one block south of the central business district and one block east of the U.S. Highway 81 bridge across the Missouri River. The Yankton sewage and water treatment plants are located on the downstream and upstream sides of the park, respectively. Access to the park is provided by Riverside Drive, which parallels the river and acts as the northern park boundary, and Douglas Street on the western end of the park.

The park waterfront extends for approximately one-half mile. The western portion of the park is level to slightly sloping with mowed grass and numerous trees. The eastern portion of the park has little vegetation and only a few trees located along the riverbank. The average riverbank height along the length of the park is 15 to 20 feet.

During the 1920's and 1930's, the Yankton riverfront was used as a city landfill. Since the 1940's, this land has been used as a park and river access point. The current boat ramp was constructed in 1978 with Land and Water Conservation Act Funds.

In the past, concrete rubble, asphalt, rebar, and brick were

dumped over the nearly vertical bank to control erosion; and in most instances, erosion has been controlled. When the Cops last inspected the existing bank stabilization and areas of erosion on the MNRR in May 1988, the Riverside Park reach was considered stable. However, because of the unsightliness of the park from the river and because of the violation of Section 404 of the Clean Water Act, the riverbank is being cleaned up to remove the rebar, brick, and asphalt. Additional concrete rubble should control any breakthrough erosion which could result from removal of the existing unsightly materials.

Because of the degradation of the riverbed, all but approximately 3 feet of the existing 50-foot boat ramp is exposed. According to the Investigation of Channel Degradation 1987 Update for the Missouri River from Gavins Points Dam to the Platte River confluence, degradation of the riverbed is expected to continue. It is estimated that by 1996 this degradation would lead to the exposure of the existing Riverside Park boat ramp.

ALTERNATIVES:

a. Redevelopment of Riverside Park. The City of Yankton, the owner of the property, is interested in cost sharing the upgrading of facilities at this site. The increased use of Riverside Park during the last decade has prompted the City to re-evaluate both the purpose of the park and the park's facilities. The Yankton Board of City Commissioners has studied the historic use, has evaluated the existing situation, and has determined that Riverside Park needs to upgrade existing facilities and add new ones to meet the demands of increased park use.

b. No Action Alternative. The no action alternative involves no upgrading of the existing facilities. The Riverside Park site would remain as it currently exists with the boat ramp eventually becoming an unsafe and shallow access point to the MNRR.

DESCRIPTION OF THE PROJECT AREA

a. Fish, Wildlife and Vegetation. Early vegetational succession is occurring on some sandbars both upstream and downstream from the proposed site. Annual grasses and seedlings of woody species are rapidly colonizing these sandbars.

The FEIS identified 48 species of mammals which inhabit the recreational river project area. However, because of the urban nature of the existing park, few of these species can be found in the proposed project area.

A list of fish species that are found in the MNRR corridor can be found in the FEIS. These species would be expected to be found in the project vicinity.

As described in the FEIS, many species of birds are year

round residents as well as spring and fall migrants in the MNRR. Especially spectacular are the annual spring and fall migrations of waterfowl and shorebirds along the river corridor. The interior least tern and bald eagle both listed as Federal endangered species and piping plover listed as threatened may occur near the proposed recreational development. Both interior least terns and piping plover breeding colonies occur on sandbars between Yankton, South Dakota and Ponca State Park. Bald eagles may use the project area occasionally as winter migrants but are not known to use it as a major roost area.

b. Cultural Resources. The Riverside Park area was surveyed for cultural resources in 1988 by Augustana College as recommended by the South Dakota State Historic Preservation Officer.. No significant sites were discovered during the course of the pedestrian investigation.

PROJECT EFFECTS:

a. Fish, Wildlife, and Vegetation. The proposed project would have a short term adverse effect during the construction of the facilities. Removal of a few trees, mostly volunteer trees along the bank, would be required to construct the proposed facilities. A short term decrease in air quality could occur during construction activities. All adverse effects would be temporary and would not be considered significant.

b. Endangered Species. The interior least tern and piping plover are summer residents to the MNRR. Breeding takes place on bare alluvial sandbars or islands. Piping plover breeding habitat is similar to the interior least terns but plovers are more tolerant of vegetation. Arrival, nest initiation, egg laying, incubation and post fledging period for both species takes place from mid-May to early August. After a 20-day incubation period the least tern chicks hatch and will fledge in another 20 days. Piping plovers have a four week incubation period and a five week brooding period. The terns feed on small fish such as minnows. Piping plovers feed on small invertebrates such as insects and crustaceans which are found along shorelines.

The closest interior least terns and piping plovers have been recorded nesting to the proposed development is approximately 1-1/2 miles upstream. The closest nesting colony downstream is approximately 1 mile from the proposed site.

The actual construction associated with upgrading the recreation facility would not be expected to directly affect the known nesting colonies or sandbars which could potentially be used for nesting. It is unlikely that human activities constrained to the site would affect terns or plovers because of the distance to the nearest potential nesting sites. It is also unlikely that the recreation facility would be a source of access for foot travel or all terrain vehicles (ATV's) to sandbars where tern and plover breeding activity may be taking place.

However, one of the factors which led the U.S. Fish and Wildlife Service to list the two species as threatened and endangered was the negative effect of recreation activities on their reproductive success.

The Nebraska Game and Parks Commission in annual interior least tern surveys of the Missouri River have recorded negative impacts from recreation activity. Observed activities included boating, skiing, fishing, driftwood collection, picnicking, sunbathing, and fireworks displays.

River traffic itself did not significantly affect nesting activities. Boating activities did not appear to evoke defensive behavior in nesting terns. However, when people left their boats and walked on the sandbars where nesting activities were in progress, the birds did respond. Data from annual tern surveys showed that human disturbance on sandbars was insignificant until the Fourth of July weekend when all sandbars being observed had some evidence of human activity.

Boating activities originating at the recreation site have the potential to contribute to human disturbances at nesting colonies. Boaters originating at the recreation site could choose to stop on sandbars occupied by terns and plovers. However, that potential exists now because of the use the present site receives as a boat launching area. The greatest potential exists on holiday weekends during the summer months.

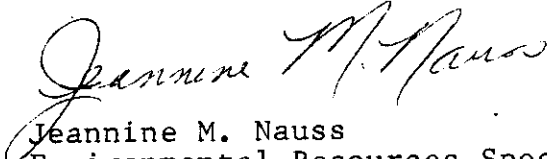
The U.S. Fish and Wildlife Service has recommended that three conditions be fulfilled during project operations. Signs describing the least tern and piping plover would be placed at the Riverside Park boat ramp and on any islands or sandbars within 5 miles of the park. Public information talks on least terns and piping plovers would be given by the City at least once each year at the park. In addition, on high-use weekends, a public education campaign concerning least terns and piping plovers would be conducted through the distribution of informational brochures and informal discussions.

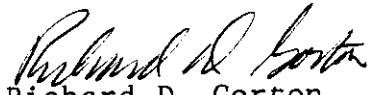
In summary, there would be no adverse impact to the interior least tern or piping plover as a result of the Riverside Park recreation development for the following reasons: 1) The Riverside Park facility would not be constructed in close proximity to tern/plover nesting colonies; 2) Foot travel and all terrain vehicles originating at the site would not have access to nesting colonies; 3) Public education by signs, brochures, and discussions would eliminate the possible adverse impact of boating recreation which might occur because of development.

Endangered Species Act compliance on the MNRR will be completed when specific features are identified and prior to any additional development.

Formal Section 7 consultation on the Missouri River operations is currently underway. This consultation will include the MNRR reach of the Missouri River.

Considering the possible incidental use by eagles of the immediate area and the lack of any adverse effect on the major components of eagle habitat, the upgrading of the recreation facilities at Riverside Park will have no effect on the bald eagle.


Prepared by: Jeannine M. Nauss
Environmental Resources Specialist
November 1988


Approved By: Richard D. Gorton
Chief, Environmental Analysis Branch
November 1988

BIBLIOGRAPHY

1. Anonymous, Nebraska Game and Parks Commission. Undated. Interior Least Tern Nesting Survey, 1981.
2. Carlson, Dave, Ross Lock, Nebraska Game and Parks Commission. Undated. Interior Least Tern Nesting Survey, 1981.
3. Dinan, J.J., Nebraska Game and Parks Commission. Undated. Missouri River Interior Lest Tern Nesting Survey, 1982.
4. Dinan, John, Ross Lock and Dave Carlson, Nebraska Game and Parks Commission. June 1985. Missouri River Least Tern and Piping Plover Habitat Management Proposal presented to the Army Corps of Engineers.
5. U.S. Department of the Army, Omaha District Corps of Engineers. July 1980. Missouri National Recreational River Final Environmental Impact Statement.
6. U.S. Department of the Interior, Heritage Conservation and Recreation Service. Missouri National Recreational River Management Plan.
7. U.S. Department of the Army, Omaha District Corps of Engineers. July 1980. Missouri National Recreational River Nebraska and South Dakota General Design Memorandum MRR-1, Gavins Point Dam, south Dakota to Ponca State Park, Nebraska.
8. U.S. Department of Interior, Fish and Wildlife Service. May 28, 1985. "Endangered and Threatened Wildlife and Plants; Interior Population of the Least Tern Determined to be Endangered." Final Rule. Federal Register. Vol. 50, No. 102, pp 21784-21792.

ENVIRONMENTAL REVIEW
RIVERSIDE PARK
YANKTON, SOUTH DAKOTA

Archeological and Historic Preservation Act, as amended, 16 U.S.C., et. seq. In compliance. The site was examined for cultural resources. No cultural resources which were eligible for inclusion on the National Register of Historic Places were found.

Clean Air Act, as amended, 42 U.S.C. 1857h-7, et. seq. In compliance. During the construction process, levels of air pollution due to diesel emissions from construction equipment will increase. These increases will only be temporary. Air quality will return to normal after completion of the project.

Clean Water Act, as amended, (Federal Water Pollution Control Act) 33 U.S.C. 1251, et. seq. Section 404 evaluation is in progress. No significant impact is expected.

Coastal Zone Management Act, as amended, 16 U.S.C. 1451, et. seq. Not applicable. The proposed project does not involve a coastal zone.

Endangered Species Act, as amended, 16 U.S.C. 1531, et. seq. Several endangered and threatened species were evaluated. No impact is expected.

Estuary Protection Act, 16 U.S.C. 1221, et. seq. Not applicable. The proposed project does not involve an estuary.

Federal Water Project Recreation Act, as amended, 16 U.S.C. 460-1(12), et. seq. Not applicable. There have been no changes in allocation or ownership of any project lands.

Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661, et. seq. Not applicable due to the scope of the project.

Land and Water Conservation Fund Act, as amended, 16 U.S.C. 4601-4601-11, et. seq. Not applicable. No lands are being acquired or developed with assistance from LWCF funds.

Marine Protection, Research and Sanctuaries Act, 33 U.S.C. 1401, et. seq. Not applicable. The proposed project does not involve the discharge of materials into the ocean.

National Historic Preservation Act, as amended, 16 U.S.C. 470a, et. seq. In compliance. The site was examined for cultural resources. No cultural resources which were eligible for inclusion on the National Register of Historic Places were found.

National Environmental Policy Act, as amended, 42 U.S.C. 4321, et. seq. In compliance. The proposed project will have no significant effect on the human environment.

Rivers and Harbors Act, 33 U.S.C. 401, et. seq. Not applicable. The proposed action does not involve the placement of obstructions in a navigable waterway.

Watershed Protection and Flood Prevention Act, 16 U.S.C. 1101, et. seq. Not applicable. The proposed project does not involve the construction of dams in an upstream watershed.

Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271, et. seq. In compliance. The development is part of implementing a National Recreational River.

Flood Plain Management (E.O. 11988). In compliance. No adverse impacts on the flood plain are anticipated.

Protection of Wetlands (E.O. 11990). In compliance. The proposed development will not have any adverse effects on wetlands.

CEQ Memorandum, August 11, 1980, Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA. Not applicable. The project site does not involve any prime or unique agricultural lands.

CEQ Memorandum, August 10, 1980, Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory. Not applicable. The proposed project does not involve rivers in the National Inventory.

APPENDIX D

Biological Assessment

BIOLOGICAL ASSESSMENT
THREATENED AND ENDANGERED SPECIES
Riverside Park
Yankton, South Dakota
June 1988

The City of Yankton is negotiating with the Corps of Engineers (COE) on a recreation cost-sharing agreement for the redevelopment of Riverside Park in Yankton, South Dakota.

Riverside Park is located on the left bank of the Missouri National Recreational River (MNRR) at river mile 805.5. The current facility encompasses an area of approximately 20 acres. As a public use area, it consists of a ball diamond, boat ramp, and picnic area. The increased use of Riverside Park during the last ten years has prompted the city to reevaluate the purpose of the park and the scope of its facilities. The Yankton City Commission has studied the historic use, evaluated the existing situation and determined that Riverside Park needs to upgrade facilities. In addition, an excursion boat facility has been proposed for future park development. This excursion boat would be docked at Riverside Park and would run from the park upstream to Lake Yankton. The City has suggested a development plan to be implemented in several yearly phases.

The primary concern in preparing this assessment is the effect the possible increase in river use would have on the peregrine falcon, bald eagle, interior least tern and piping plover.

After consultation with several State and Federal agencies and after research of available material, the determination has

been made that the proposed project would not likely affect the peregrine falcon, bald eagle, interior least tern or piping plover.

PEREGRINE FALCON

The peregrine falcon bred historically throughout North America. The peregrine falcon, which is on the federal endangered species list, is located from Mexico north to the arctic tundra of Alaska and western Canada. Sightings in South Dakota and Nebraska occur mainly during the migration months (March through May and September through November). The falcon's principal food items are passerine birds, waterfowl, and shorebirds. Because their expected occurrence in the area is only during migration and because this species is not restricted to a riverine area for food searching or hunting, we have determined that the proposed action would not likely affect the peregrine falcon.

BALD EAGLE

The bald eagle is restricted in distribution to North America and is listed as an endangered species throughout most of the continental United States. Most nesting bald eagles are found in the interior Canadian provinces and northern U.S. and are considered a very rare summer breeder in southeastern South Dakota. During their migration south in the fall, bald eagles are known to use the island at the confluence of the James and Missouri Rivers and in trees along the Missouri River below

Gavins Point Dam and for food searching and roosting. While the project would take place near the river, it would not involve the removal of any trees used by the eagles. In addition, eagles have shown little tolerance for human activity. Because of the urban character of the area and the lack of available habitat for nesting, feeding, or roosting, we have established that the proposed action would not likely affect the bald eagle.

INTERIOR LEAST TERN AND PIPING PLOVER

Least Tern - The interior least tern is Federally listed as an endangered species. The tern has a history of use of the Missouri River, especially in the MNRR reach, Gavins Point Dam to Ponca, Nebraska (RM 810-750). Yearly surveys have been conducted in this stretch of the river. In 1987, 31 tern colonies with an average of 8 terns per colony were found throughout this reach. This population represents probably the largest remnant population of least terns along the Missouri River's entire length. Due to channelization and impoundment of the river over the great majority of its length, terns now are commonly found only on the MNRR reach and downstream of Garrison Dam in North Dakota.

The populations on the Missouri River are breeding populations which spend their winters in Central and South America and the Gulf States. The birds commonly arrive in the project area in early to late May though some do arrive earlier. The MNRR birds nest in colonies of 1 to 20 pairs on mid-river sandbars or islands. They may also use sandy shorelines;

however, such use is rare. The sandbars or islands used are sandy, and the preferred nesting sites are open areas, basically unvegetated, with some short sparse vegetation available on the same island or sandbar for protection of young chicks from weather extremes and predators. The nest is a simple scrape in the sand, sometimes lined with shells or pebbles. Egg-laying occurs from late May to early June and seems to peak in the first week of June. Renesting may occur if eggs or week-old chicks are lost early in the breeding season. Eggs number about 3 to a clutch and are incubated for about 21 days before hatching. Fledging the young, for which two months are needed, occurs in mid to late July. Terns gather in small flocks and feed along rivers, streams, lakes, ponds and mud-flats, before departing in mid-August.

Much concern has centered on the loss of suitable nesting habitat. Channelization and impoundment of the Missouri River have eliminated many islands and sandbars and thereby have eliminated tern nesting along most of the river. In addition, increased access to the sandbar islands by recreationists have led to the accidental destruction or abandonment of the nests and young chicks.

Piping Plovers - On the Missouri River, piping plovers occupy approximately the same habitat as the least tern. The plovers occupy virtually the same island habitats as the terns and many times are seen at the same sites where terns are seen. In 1987, 31 plover colonies with an average of 6 plovers per colony were found in the MNRR.

As with least terns, the plovers on the MNRR are breeding populations. They arrive a bit earlier than the terns and begin nesting about a week before terns. Their brood cycle therefore starts and progresses a bit earlier than for terns, but it is completed at about the same time.

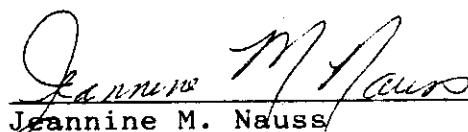
The plovers nest in colonies on islands and sandbars, and along shorelines having little vegetation. Their preferences are very similar to those of terns except that the substrate can be a bit rockier than the sand preferred by terns; also, the vegetation can be a bit more developed, and plover nests therefore can be found a bit further from the water on slightly higher ground. Nests are shallow scrapes sometimes lined with pebbles, and 4 eggs are usually laid. Hatching and fledging times are similar to the terns.

Plovers seem fairly tolerant of mild temporary disturbance, preferring to run away rather than take flight. Recreation and other serious disturbance, however, are sometimes primary causes of population declines.

Summary - Improved access to the Missouri National Recreational River could result in increased visitation to the islands and sandbars during the nesting season of the least tern and piping plover. In order to increase the awareness of the public to the plight of these endangered species, it is recommended that the following conditions be included in the required 404 permit. (1) Information signs on both the least tern and piping plover will be placed at the Riverside Park boat ramp as well as on any islands or sandbars in the MNRR

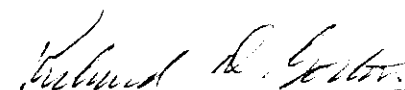
within 5 miles of the park. (2) At least once each year, a public information talk will be given at the park on least terns and piping plovers. The talk could be presented by either the City of Yankton or the U.S. Fish and Wildlife Service. (3) An active public education campaign will take place on high-use weekends such as Memorial Day or the Fourth of July. Informational brochures on the terns and plovers will be handed out to boaters and park users. Informal discussions explaining the plight of these birds and the effect of human activity on their nesting activities will be performed. If these recommendations are followed, it has been determined that there would not likely be an effect to either the least tern or the piping plover.

Prepared by:



Jeannine M. Nauss
Environmental Resources Specialist
June, 1988

Approved by:



Richard D. Gorton
Chief, Environmental Analysis Branch
June, 1988

BIBLIOGRAPHY

1. Snow, Carol. 1972. Habitat Management Series for Endangered Species - Report No. 1. American Peregrine Falcon and Arctic Peregrine Falcon. Bureau of Land Management (T-N-167).
2. Woodard, Donald W. 1980. American Peregrine Falcon. U.S. Fish and Wildlife Service. Report OBS-80/01.57.
3. Steenhof, Karen. 1978. Management of Wintering Bald Eagles. U.S. Fish and Wildlife Service. Contract #14-16-0006-77-030.
4. Northern States Bald Eagle Recovery Team. 1983. Northern States Bald Eagle Recovery Plan. U.S. Fish and Wildlife Service.
5. Whitman, P. L. 1988. Biology and Conservation of the Endangered Least Tern: A Literature Review. U.S. Fish and Wildlife Service. Biological Report 88(3).
6. Schwalbach, M. J., Vandell, G. M. III, Higgins, K. F. 1988. Status, Distribution and Production of Interior Least Terns and Piping Plovers Along the Main Stem Missouri River In South Dakota, 1986-1987. U.S. Army Corps of Engineers, Missouri River Division. GFP Report No. 88-01.

APPENDIX E

Fish and Wildlife Service Letter

Dated 24 June 1988

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
South Dakota State Office (FWE)
Post Office Box 986
Pierre, South Dakota 57501

June 24, 1988

Richard D. Gorton
Chief, Environmental Analysis Branch
Planning Division
Corps of Engineers, Omaha District
215 North 17th Street
Omaha, Nebraska 68102-4978

Dear Mr. Gorton:

This is in response to your June 13, 1988, biological assessment for the redevelopment of Riverside Park in Yankton, South Dakota.

The U.S. Fish and Wildlife Service (Service) concurs with your determination that the proposed project as currently planned is not likely to adversely affect the peregrine falcon (Falco peregrinus), bald eagle (Haliaeetus leucocephalus), least tern (Sterna antillarum), and piping plover (Charadrius melodus). However, we recommend changes in recommended condition Number 2 which states, "At least once a year, a public information talk will be given at the park on least terns and piping plovers. The talk could be presented either by the City of Yankton or the U.S. Fish and Wildlife Service." The permit for development is for the City of Yankton, not the Service. Therefore, the burden of compliance is on the City, not the Service. We recommend the condition be changed to read, The talk should be presented by the City of Yankton. We are willing to assist the City of Yankton in preparation of such presentations; however, we do not wish to be mandated to such a task.

If changes are made in the project plans or operating criteria, or if additional information becomes available, the Service must be informed so that the above determination can be reconsidered.

We appreciate your interest in the conservation of endangered species.

Sincerely,



M. S. Zschomler
State Supervisor
Fish and Wildlife Enhancement